Claims:

1. A method of improving the physical performance of a user through thermoregulation comprising the steps of:

(a) applying a thermoregulating composition of matter to at least one portion of a user's body, the composition of matter including:

cellulosic compound ranging from about 1% to about 3% by weight having an average molecular weight ranging between about 90,000 and about 700,000 represented by the formula: R--O--COOM, in which "M" is a metal substituted for hydrogen on said carboxyl group of the cellulosic compound and "R" is cellulosic chain;

a hydrated metallic salt ranging from about 0.1% to about 0.3% by weight, and

water ranging from about 97% to about 99% by weight; and

(b) performing physical exertion.

2. The method of claim 1, wherein the thermoregulating composition of matter is applied to between 2 to about 6 portions of the user's body.

3. The method of claim 1, wherein the thermoregulating composition of matter is applied to at least 3 portions of the user's body.

4. The method of claim 1, wherein the thermoregulating composition of matter is applied to at least 5 portions of the user's body.

5. The method of claim 1, wherein the amount of the thermoregulating composition of matter applied to the user ranges from about 0.2 to about 1 kilogram in weight.

6. The method of claim 3, wherein the amount of the thermoregulating composition of matter applied to the user ranges from about 0.1 to about 0.6 kilograms in weight.

7. The method of claim 4, wherein the amounts of the thermoregulating composition of matter applied to the user ranges from about 0.4 to about 1.2 kilograms in weight.

8. The method of claim 1, wherein the water in the thermoregulating composition is bound in solid or semi-solid form.

9. The method of claim 8, wherein the bound water of thermoregulating composition of matter undergoes a reaction that causes the water to convert to a liquid state.

10. The method of claim 8, wherein the bound water in the thermoregulating composition of matter undergoes a phase change to provide thermoregulation.

11. A method of improving the physical performance of a user through thermoregulation comprising the steps of:

(a) applying at least one packet containing a composition of matter comprising:

cellulosic compound ranging from about 1% to about 3% by weight having an average molecular weight ranging between 90,000 and 700,000 represented by the formula: R--O--COOM, in which "M" is a metal substituted for hydrogen on said carboxyl group of the cellulosic compound and "R" is cellulosic chain;

a hydrated metallic salt ranging from about 0.1% to about 0.3% by weight; and

water ranging from about 97% to about 99% by weight; and,

(b) performing physical exertion.

12. The method of claim 11, wherein said metal of said cellulosic compound is selected from the group comprising: lithium, sodium, potassium, rubidium and cesium.

13. The method of claim 11, wherein said metal of said cellulosic compound is sodium.

14. The method of claim 11, wherein said hydrated metallic salt is selected from the salt group consisting essentially of aluminum sulfate, zinc sulfate, indium sulfate, cadmium sulfate and gallium.

15. The method of claim 11, wherein the packet is constructed of permeable material.

16. The method of claim 11, wherein the composition of matter further includes a medicine, a vitamin, a mineral, a preservative, an odor eliminator, a scenting agent, a coloring agent or a skin moisturizer.

17. An article of clothing for wearing on the body of a user that improves the physical performance of the user through thermoregulation comprising:

(a) an article of clothing adapted for wearing on the body, the article having at least one pouch; and

(b) a thermoregulating composition of matter, located in the pouch, the composition of matter including:

a cellulosic compound ranging from about 1% to about 3% by weight having an average molecular weight ranging between about 90,000 and about 700,000 represented by the formula: R--O--COOM, in which "M" is a metal substituted for hydrogen on said carboxyl group of the cellulosic compound and "R" is cellulosic chain;

a hydrated metallic salt ranging from about 0.1% to about 0.3% by weight, and

water ranging from about 97% to about 99% by weight.

18. The article of claim 17, wherein the article is a hat.

19. The article of claim 17, wherein the article is a helmet.

20. The article of claim 17, wherein the article is a piece of head-gear that covers the scalp.

21. The article of claim 17, wherein the article is a strip.

22. The article of claim 17, wherein the article is a pair of shorts.

23. The article of claim 17, wherein the article is a pair of pants.

24. The article of claim 17, wherein the article is a garment that covers a user's torso.

25. The article of claim 24, wherein the article is a jacket.

26. The article of claim 25, wherein the article is a flak jacket.

27. The article of claim 17, wherein the article is used in the context of professional athletics equipment, military equipment, fire fighting equipment, police equipment, construction worker equipment, or mail carrier equipment.